(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 21 April 2005 (21.04.2005)

PCT

(10) International Publication Number WO 2005/036540 A2

(51) International Patent Classification⁷:

G11B 7/095

(21) International Application Number:

PCT/IB2004/003240

(22) International Filing Date: 1 October 2004 (01.10.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

03300152.0

13 October 2003 (13.10.2003) EP

- (71) Applicant (for all designated States except US): KONIN-KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): TUKKER, Teunis [NL/NL]; c/o Société Civile SPID, 156 Boulevard Haussmann, F-75008 Paris (FR). ANDERSEN, Ole [DK/NL]; c/o Société Civile SPID, 156 Boulevard Haussmann, F-75008 Paris (FR). LIEDENBAUM, Coen [NL/NL]; c/o Société Civile SPID, 156 Boulevard Haussmann, F-75008 Paris (FR).
- (74) Agent: CHAFFRAIX, Jean; Société Civile SPID, 156 Boulevard Haussmann, F-75008 Paris (FR).

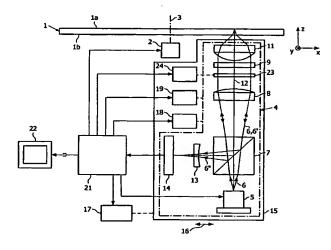
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,

[Continued on next page]

(54) Title: METHOD AND DEVICE FOR COMPENSATING TILT OF AN OPTICAL DATA CARRIER



(57) Abstract: The invention relates to a method of and a device for compensating tilt of an optical or magneto-optical disc (1) exhibiting unknown tilt when placed in an apparatus for reading and/or writing data from and/or onto the optical or magneto-optical disc. A holographic optical element (23) containing a plurality of holograms each defining a phase profile able to compensate at least a specific coma amount is placed in a light path of an optical read/write unit (4) of the apparatus. The amount of tilt of the disc or coma introduced by the tilt is detected (14, 21), and a hologram defining a phase profile corresponding to the detected amount of tilt or coma is selected and accessed among the plurality of holograms of the holographic optical element for compensating the detected amount of tilt or coma. The invention applies to any type of optical data carrier such as so-called LD, CD, R-CD, DVD, DVD+R, DVD+RW, DVD-RW, DVR (Blue Ray).



WO 2005/036540 A2



JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.